

REMARKS

Entry of the foregoing amendments is respectfully requested.

Summary of Amendments

Upon entry of the foregoing amendments, claims 2-19 are cancelled and claims 20-41 are added, whereby claims 20-41 will be pending, with claims 20, 40 and 41 being independent claims.

Support for the new claims can be found throughout the present specification (see, e.g., the Examples) and in the original claims.

Applicants emphasize that the cancellation of claims 2-19 is without prejudice or disclaimer, and Applicants expressly reserve the right to prosecute these claims in one or more continuation and/or divisional applications.

Summary of Office Action

Claims 2, 3 and 5-18 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Rosenberg et al., U.S. Patent No. 6,046,297 (hereafter “ROSENBERG”), in view of Sondhe et al., U.S. Patent No. 5,340,652 (hereafter “SONDHE”).

Claims 4 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over ROSENBERG in view of SONDHE and in further view of Motsinger et al., U.S. Patent No. 3,217,536 (hereafter “MOTSINGER”).

Claims 19 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over ROSENBERG in view of SONDHE and in further view of Chapin, U.S. Patent No. 4,089,215 (hereafter "CHAPIN").

Response to Office Action

Reconsideration and withdrawal of the rejections of record are respectfully requested, in view of the foregoing amendments and the following remarks.

Response to Rejection of Claims 2, 3 and 5-18 under 35 U.S.C. § 103(a)

The rejection essentially alleges that ROSENBERG teaches the reaction of the components of polyol component (A) recited in cancelled independent claim 17 with polyurethane component (B) and SONDHE allegedly renders it obvious to add the resultant product to an epoxy resin which is not yet completely cured.

Applicant respectfully disagrees with the Examiner in this regard. At any rate, the rejected claims are cancelled, wherefore the rejection is moot.

Regarding the claims submitted herewith it is pointed out that independent claim 20 makes it absolutely clear that in the claimed process one or more aromatic polyisocyanates are reacted with a mixture of (a) one or more low molecular weight polyols, (b) one or more higher molecular weight polyols, and (c) one or more light resistant aromatic amines, i.e., that the one or more aromatic polyisocyanates are reacted concurrently with at least two different polyols and with at least one aromatic amine.

ROSENBERG neither teaches nor suggests that an (aromatic) amine is or should be present during the reaction of one or more polyols with a molar excess of

polyisocyanates to produce the isocyanate-terminated prepolymer disclosed therein. On the contrary, ROSENBERG clearly teaches that an (aromatic) amine is to be reacted with isocyanate-terminated prepolymer only, i.e., does not come into contact with the initially employed polyisocyanate(s) (and the initially employed polyol(s)). See, e.g., claims 1-3 of ROSENBERG.

In other words, ROSENBERG clearly teaches that an amine is added to isocyanate group containing compounds (isocyanate-terminated prepolymers) only after all of the employed polyol(s) has been reacted with excess polyisocyanate(s) (forming isocyanate-terminated prepolymers). Accordingly, ROSENBERG fails to teach or suggest a simultaneous reaction of a polyisocyanate with both a polyol and an amine.

The Examiner's attention further is directed to the following passages of ROSENBERG (emphasis added):

Col. 3, lines 12-21:

Further examples of this invention show an unexpected advantage using a blend of two aromatic diamine curatives, particularly MCDEA and 4,4'-methylene-bis-(2-chloroaniline) ("MBOCA"). When such a curative blend is reacted with TDI prepolymer, it reduces the propensity of the polymerizing mass to crack. Both polyol and MBOCA are known to react more slowly than MCDEA with isocyanate prepolymers. However, MCDEA/polyol blends (which are known in the art) do not impart reduced propensity to crack. Therefore, it is surprising that MCDEA/MBOCA blends do exhibit this improvement.

Col. 11, lines 3-10:

Comparative Examples C and H show the unsuitable effects of preblending MCDEA and polyol (PTMEG 1000). Such curative blends are known. In H, an 80/20 blend by weight of MCDEA and PTMEG 1000 was used in place of pure MCDEA, holding curative level constant at 0.95. The prepolymer type was held constant. Pot life was slightly reduced and propensity to crack was significantly increased by use of this curative blend.

Accordingly, ROSENBERG not only fails to teach or suggest the employment of a mixture of polyol and amine but even teaches that blends of polyol and amine (MCDEA) do not reduce, and may even significantly increase, the propensity to crack of the resultant cured polyurethane. In other words, ROSENBERG not only fails to render obvious the process recited in instant claim 20 but even teaches away therefrom.

SONDHE is unable to cure the above-noted deficiencies of ROSENBERG, even if one were to assume, *arguendo*, that one of ordinary skill in the art would be motivated to combine the teachings of ROSENBERG and SONDHE. For example, SONDHE does not even disclose the use of amines as reactants for polyisocyanate compounds. In this regard, it is pointed out that the amine hardeners mentioned in SONDHE are exclusively mentioned as hardeners for the epoxy composition (see col. 4, line 34 to col. 9, line 19 of SONDHE), whereas the passage of SONDHE which relates to the urethane composition (col. 9, line 21 to col. 12, line 58) does not mention amine hardeners. See also the abstract of SONDHE which states, *inter alia* (emphasis added):

The epoxy composition is generally a two-part, 100 percent volatile-free system containing one or more hardeners which are reacted with an epoxy component such as the glycidyl ether of bisphenol-A. The urethane composition is also generally a two-part, 100 percent volatile-free system containing a polyisocyanate component and an intermediate component comprising a polylactone polyol, and/or a polyether polyol, a polyester polyol, or a polyether-ester polyol, an aliphatic polyol chain extender and a moisture scavenger.

In view of the above facts, the allegation at page 3, second paragraph of the instant Office Action according to which SONDHE and ROSENBERG "are analogous art because they are both concerned with the same field of endeavor, namely polyurethane compositions cured with aromatic amines" is clearly without merit.

Applicant submits that for at least all of the foregoing reasons and the additional reasons set forth in the responses to the previous Office Actions, ROSENBERG in view of SONDHE fails to render obvious the subject matter of any of the claims submitted herewith. In this regard, it is emphasized that in view of the clear facts set forth above, Applicant refrains from commenting on the various remaining allegations which are set forth in the instant Office Action without admitting however, that any of these allegations is meritorious.

Response to Rejection of Claim 4 under 35 U.S.C. § 103(a)

Claims 4 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over ROSENBERG in view of SONDHE and in further view of MOTSINGER.

Applicant respectfully disagrees with the Examiner in this regard as well. At any rate, claim 4 is cancelled, wherefore the rejection is moot.

It further is noted that claims 4 is a dependent claim and is not rendered obvious for at least all of the reasons which are set forth above in connection with the claim from it depends. MOTSINGER apparently is unable to cure the deficiencies of ROSENBERG and SONDHE.

Moreover, it is not seen that one of ordinary skill in the art would be motivated to combine the disclosure of MOTSINGER with the disclosure of ROSENBERG and/or SONDHE. For example, MOTSINGER mentions (foamed) polyurethanes and polyester or epoxy resins only generically as examples of suitable materials for the outer surface of the inner shell and the outer shell of the force vector transducer taught therein, without giving any details regarding the composition or production of these materials.

It further is not seen that someone who wishes to modify the teaching of ROSENBERG (relating to castable polyurethane and/or polyurethane/urea elastomer compositions; see, e.g., col. 1, lines 11-13 of ROSENBERG) or the teaching of SONDHE (relating to epoxy resin/polyurethane laminates for use as road lane markers; see, e.g., abstract of SONDHE) would expect to find any useful information in this regard in a document which relates to force vector transducers which are especially adapted for measuring both the direction and the extent of the three force components of a moving current of fluid such as air or water (see, e.g., col. 1, lines 9-13 of MOTSINGER).

Applicant submits that for at least all of the foregoing reasons and the additional reasons set forth in the responses to the previous Office Actions, also ROSENBERG in view of SONDHE and MOTSINGER fails to render obvious the subject matter of any of the claims submitted herewith.

Response to Rejection of Claim 19 under 35 U.S.C. § 103(a)

Claims 19 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over ROSENBERG in view of SONDHE and in further view of CHAPIN.

Applicant respectfully disagrees with the Examiner in this regard as well. At any rate, claim 19 is cancelled, wherefore the rejection is moot.

It further is noted that claims 19 is a dependent claim and is not rendered obvious for at least all of the reasons which are set forth above in connection with the claim from it depends. CHAPIN apparently is unable to cure the deficiencies of ROSENBERG and SONDHE.

It further is not seen that someone who wishes to modify the teaching of ROSENBERG (relating to castable polyurethane and/or polyurethane/urea elastomer compositions; see, e.g., col. 1, lines 11-13 of ROSENBERG) or the teaching of SONDHE (relating to epoxy resin/polyurethane laminates for use as road lane markers; see, e.g., abstract of SONDHE) would expect to find any useful information in this regard in a document which relates to an air flow transducers for measuring the rate of air flow into an engine having a propensity to backfire (see, e.g., abstract of CHAPIN).

Applicant also fails to see that a low density plastic material such as a foamed polyurethane (see col. 5 lines 45-55 of CHAPIN) is similar to a synthetic resin composite material with a flexible polyurethane gel coat, as alleged by the Examiner at page 7, second paragraph of the instant Office Action.

It is submitted that for at least all of the foregoing reasons and the additional reasons set forth in the responses to the previous Office Actions, also ROSENBERG in view of SONDHE and CHAPIN is unable to render obvious the subject matter of any of the claims submitted herewith.

CONCLUSION

In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance, which action is respectfully requested. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,
Jochen WEHNER

/Heribert F. Muensterer/

Heribert F. Muensterer
Reg. No. 50,417

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GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191